Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-65: Currently Cancelled.

66. (Original) A method of operating a semiconductor memory cell formed in a semiconductor substrate, the memory cell includes a substrate of semiconductor material of a first conductivity type, a floating gate disposed over and insulated from a surface of the substrate, and first and second spaced-apart regions formed in the substrate and having a second conductivity type, with a non-linear channel region therebetween, wherein the channel region defines a path for programming the floating gate with electrons from the second region, the method comprising the steps of:

coupling a positive voltage to the floating gate; and

inducing electrons to flow from the second region, through a first portion of the channel region, to inject electrons onto the floating gate.

67. (Currently Amended) The [device] method of claim 66, wherein channel region first portion extends in a direction directly toward the floating gate.

68. (Currently Amended) The [device] method of claim 67, wherein channel region first portion extends in a direction substantially perpendicular to the substrate surface.

Claims 69-74: Currently Cancelled.

75. (Newly Added) A method of operating a semiconductor memory cell formed in a semiconductor substrate, the memory cell including a trench formed into a surface of a substrate of semiconductor material of a first conductivity type, first and second spaced-apart regions formed in the substrate and having a second conductivity type, with the second region formed underneath the trench such that a channel region of the substrate is defined between the first and second regions that extends substantially along a sidewall of the trench and substantially along the substrate surface, a floating gate of electrically conductive material disposed over and insulated from at least a portion of the channel region and a portion of the first region, a control gate of electrically conductive material having a first portion disposed in the trench, and insulation material disposed between the floating gate and the control gate having a thickness permitting Fowler-Nordheim tunneling of charges therethrough, the method comprising:

coupling a positive voltage to the floating gate; and

inducing electrons to flow from the second region, through a first portion of the channel region, to inject electrons onto the floating gate.

76. (Newly Added) The method of claim 75, wherein the channel region first portion extends in a direction directly toward the floating gate.

77. (Newly Added) The method of claim 76, wherein the channel region first portion extends in a direction substantially perpendicular to the substrate surface.

78. (Newly Added) The method of claim 75, wherein the channel region first portion extends substantially along the sidewall of the trench.

79. (Newly Added) The method of claim 75, wherein the channel region includes a second portion that extends substantially along the substrate surface.

80. (Newly Added) The method of claim 75, wherein the floating gate has a first end disposed over and insulated from the first region, and a second end disposed over and insulated from the channel region, and wherein the floating gate second end includes a sloping upper surface that terminates in a sharp edge that extends toward the control gate.